CLAIMS

1.   (Currently Amended) A method for selecting test cases, comprising the steps of:

a) generating a harvest-goals file containing a list of events, an initial goal for each event, and an accumulative count of hits for each event;

b) picking a test case from a test-case list previously generated for a test simulation of a logic circuit design;

c) picking a corresponding test-coverage file for the test case, the test-coverage file containing one or more events and corresponding number of hits;

d) applying harvest criteria to the test case by using the test-coverage file and the harvest-goals file, wherein it is determined whether the accumulative count of hits for each event meets the initial goal, the accumulative count of hits for an event being incremented by the number of hits for the event contained in the test-coverage file;

e) determining whether to harvest the test case based on the determination made in the step d);

f) saving and identifying the test case for harvest, if the test case is determined to be harvested in the step e);

g) updating harvest-goals file by adjusting the accumulative count of hits; and

h) determining whether all test cases in the test-case list are processed by analyzing the harvest-goals file.

2.   (Original) The method of Claim 1, further comprising the step of:

repeating the steps b) through h) for another test case in the test-case list, if it is determined

in the step h) that all test cases in the test-case list are not processed.

3.   (Original) The method of Claim 1, further comprising the step of:

updating the initial goal to indicate that the corresponding event is retired, if the

accumulative count of hits reach the initial goal.

4.   (Original) The method of Claim 1, wherein the initial goals are manually generated.

5.   (Original) The method of Claim 1, wherein the initial goals are automatically

generated by using pre-programmed default goals.

6.   (Original) The method of Claim 1, further comprising the step of generating test

cases.

7.   (Currently Amended) A method ~~of~~ for determining whether a test case should be

selected for a ~~valuable~~ list of test case~~s~~, comprising the steps of:

a) generating a harvest-goals file containing a list of events, an initial goal for each event,

and an accumulative count of hits for each event;

b) generating a test case;

c) generating a corresponding test-coverage file for the test case, the test-coverage file

containing one or more events and corresponding number of hits;

d) applying harvest criteria to the test case by using the test-coverage file and the harvest-

goals file, wherein it is determined whether the accumulative count of hits for each event meets the

initial goal, the accumulative count of hits for an event being incremented by the number of hits for the event contained in the test-coverage file;

e) determining whether to harvest the test case based on the determination made in the step d);

f) saving and identifying the test case for harvest, if the test case is determined to be harvested in the step e);

g) updating harvest-goals file by adjusting the accumulative count of hits; and

h) determining whether all necessary test cases are generated in the step b), by analyzing the harvest-goals file.

8.   (Original) The method of Claim 7, wherein the step b) further comprises the steps of:

generating a coverage monitor;

generating a parameter file; and

generating a test bench.

9.   (Original) The method of Claim 7, further comprising the steps of:

determining whether the test case is faulty; and

saving and identifying the test case as failing, if the test case is determined to be faulty.

10.   (Original) The method of Claim 7, further comprising the step of:

repeating to the steps b) through h) for another test case, if it is determined in the step h) that all necessary test cases are not generated in the step a).

11.   (Currently Amended) A method for selecting test cases, comprising the steps of:

a)   reading in a harvest-goals file containing a list of events, an initial goal for each

event, and an accumulative count of hits for each event;

b)   reading in a test-coverage file containing one or more events and corresponding

number of hits;

c)   determining if the goal for an event is met;

d)   incrementing the number of the accumulative hits in the harvest-goals file by the

number of hits in the test-coverage file;

e)   determining whether the accumulative count of hits for each event meets the

corresponding initial goal;

f)   retiring the current event by forcing the goal to a value to indicate that the goal is

already met, if the initial goal is met in the step e);

g)   determining if there is another event to evaluate by analyzing the harvest-goals file;

and

h)   repeating steps c) through g) for another event, if there is another event to evaluate.

12.   (Original) The method of Claim 11, wherein the step c) further comprises the step of

setting a variable to be a first constant, indicating that the test case is not to be harvested.

13.   (Original) The method of Claim 11, wherein the step c) further comprises the step of

setting a variable to be a first constant, indicating that the test case is not to be harvested, and the

step f) comprises the step of setting the variable to be a second constant, indicating that the test case

is to be harvested.

14.　(Original) The method of Claim 11, wherein the step h) further comprises the step of determining if the number of the hits is larger than the goal.

15.　The method of Claim 11, wherein the step b) further comprises the step of reading in a file containing information on events, and the step j) comprises the step of determining if there is another event to evaluate in the file.

16.　(Original) The method of Claim 11, wherein the step a) further comprises the step of reading in a file containing information on goals and hits, and the step l) further comprises the step of updating the file, if all events have been evaluated.

17.　(Currently Amended) A computer program product for selecting test cases, the computer program product having a medium with a computer program embodied thereon, <u>wherein the computer program when executed causes the computer to perform the following functions,</u> the computer program comprising:

　　computer program code for generating a harvest-goals file containing a list of events, an initial goal for each event, and an accumulative count of hits for each event;

　　computer program code for picking a corresponding test case from a test-case list previously generated for a test simulation of a logic circuit design;

　　computer program code for picking a test-coverage file for the test case, the test-coverage file containing one or more events and corresponding number of hits;

computer program code for applying harvest criteria to the test case by using the test-coverage file and the harvest-goals file, wherein it is determined whether the accumulative count of hits for each event meets the initial goal, the accumulative count of hits for an event being incremented by the number of hits for the event contained in the test-coverage file;

computer program code for determining whether to harvest the test case based on the determination whether the number of hits for each event meets the initial goal;

computer program code for saving and identifying the test case for harvest, if the test case is determined to be harvested;

computer program code for updating harvest-goals file by adjusting the accumulative count of hits; and

computer program code for determining whether all test cases in the test-case list are processed by analyzing the harvest-goals file.

18.   (Currently Amended) A computer program product for selecting test cases, the computer program product having a medium with a computer program embodied thereon, wherein the computer program when executed causes the computer to perform the following functions, the computer program comprising:

computer program code for generating a harvest-goals file containing a list of events, an initial goal for each event, and an accumulative count of hits for each event;

computer program code for generating a test case;

computer program code for generating a corresponding test-coverage file for the test case, the test-coverage file containing one or more events and corresponding number of hits;

computer program code for applying harvest criteria to the test case by using the test-

coverage file and the harvest-goals file, wherein it is determined whether the accumulative count of

hits for each event meets the initial goal, the accumulative count of hits for an event being

incremented by the number of hits for the event contained in the test-coverage file;

computer program code for determining whether to harvest the test case based on the

determination whether the number of hits for each event meets the initial goal;

computer program code for saving and identifying the test case for harvest, if the test case is

determined to be harvested;

computer program code for updating harvest-goals file by adjusting the accumulative count

of hits; and

computer program code for determining whether all necessary test cases are generated by

analyzing the harvest-goals file.

19.   (Currently Amended) A computer program product for selecting test cases, the

computer program product having a medium with a computer program embodied thereon, wherein

the computer program when executed causes the computer to perform the following functions, the

computer program comprising:

computer program code for reading in a harvest-goals file containing a list of events, an

initial goal for each event, and an accumulative count of hits for each event;

computer program code for reading in a test-coverage file containing one or more events

and corresponding number of hits;

computer program code for determining if the goal for an event is met;

computer program code for incrementing the number of the accumulative hits in the harvest-

goals file by the number of hits in the test-coverage file;

computer program code for determining whether the accumulative count of hits for each event meets the corresponding initial goal;

computer program code for retiring the current event by forcing the goal to a value to indicate that the goal is already met, if the initial goal is met; and

computer program code for determining if there is another event to evaluate <u>by analyzing the harvest-goals file</u>.

20.   (New) A method for selecting test cases used to meet the test coverage criteria for a logic circuit design, wherein a first constant indicates that an event met an initial goal, comprising the steps of:

a)   reading in a harvest-goals file containing a list of events, the initial goal for each event, and an accumulative count of hits for each event;

b)   reading in a test-coverage file containing one or more events and corresponding number of hits;

c)   determining if the goal for an event is met by analyzing the harvest-goals file, wherein if the initial goal is met go to step g);

d)   incrementing the number of the accumulative hits in the harvest-goals file by the number of hits in the test-coverage file;

e)   determining whether the accumulative count of hits for each event meets the corresponding initial goal;

f)   retiring the current event by forcing the goal to the first constant if the initial goal is met in the step e);

g)   determining if there is another event to evaluate by analyzing the harvest-goals file;

h)   repeating steps c) through g) for another event, if there is another event to evaluate;

and

i)   updating the file if all events have been evaluated.